Atty. Dkt. No. 040563-0167



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Grier et al.

Title:

TRANSVERSE OPTICAL ACCELERATOR AND GENERALIZED OPTICAL

**VORTICES** 

Appl. No.:

10/659,153

Filing Date:

09/10/2003

Art Unit:

2621

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a prima facie art reference against the claims of the present application.



## TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

## RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1450. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1450.

Respectfully submitted,

Date 1,0005

FOLEY & LARDNER LLP Customer Number: 27433 Telephone: (312) 832-435

Facsimile:

(312) 832-4358 (312) 832-4700 Ву\_\_\_

Marshall J. Brown Attorney for Applicant Registration No. 44,566

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

puraher-						
K - V	Substitute for form	1449B	PTO			
dn <sub>m</sub>	TNFORMATION DI	SCLO	SURE	Application Number	10/659,153	
MIE O 4 SORE	STATEMENT BY	APPLI	CANT	Filing Date	09/10/2003	
Ma	Date Submitted: Au	iauet 1	2005	First Named Inventor	David G. Grier	
73s	, <b>5</b> :7	•	•	Group Art Unit	2621	
EAT & TEAD	use as many sheets	as ne	cessary)	Examiner Name		
Sheet	1	of	2	Attorney Docket Number	040563-0167	-

	U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	U.S. Patent (		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		Number	Kind Code <sup>2</sup> (if known)					
			-					
	_							
· · · · · · · · · · · · · · · · · · ·								

FOREIGN PATENT DOCUMENTS										
Examiner Initials*	Cite No.1	Office <sup>3</sup>	oreign Patent [	Oocument Kind Code <sup>5</sup> (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>		
		EP	0307940		AT&T	03/22/1989				
	ļ							ļ		
			· · · · · · · · · · · · · · · · · · ·					<del>  -</del>		
								<u> </u>		
								<u> </u>		
								<del> </del>		

Examiner Signature		Date Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

	Substitute for form	1449B/	PTO	<del></del>	Complete if Known		
	INFORMATION D	ISCLO	SURE	Application Number	10/659,153		
	STATEMENT BY	APPLI	CANT	Filing Date	09/10/2003		
	Date Submitted: A	uguet 1	2005	First Named Inventor	David G. Grier		
	Date Submitted. A	ugust i	, 2005	Group Art Unit	2621		
	(use as many sheets	s as nec	cessary)	Examiner Name			
Sheet	2	of	2	Attorney Docket Number	040563-0167		

	NON PATENT LITERATURE DOCUMENTS								
Examiner Initials*									
		Kreminskaya, L. V. et al., "The Gaussian Lenses Give Birth to Optical Vortices in Laser Beams", Optics Communications, Elsevier, Netherlands, Vol. 145, No. 1-6, January 1, 1988, Pages 377-384.							
		Heckenberg, N. R. et al., "Trapping Microscopic Particles with the Singular Beams", Proceedings of the SPIE - The International Society for Optical Engineering, vol. 3487, 1998, pages 46-53.							
		Khizhnyak,A. I. et al., "Optical Singularity's Are Induced in Gaussian Laser Beams by Kerr-like Medium: Geometrical Optics Study", Proceedings of the SPIE - The International Society for Optical Engineering, vol. 3486, 1998, pages 63-67.							
		Rodrigo, Peter John et al., "Shack-Hartmann Multiple-Beam Optical Tweezers", Optics Express, Vol. 11, No. 3							
			·						

Examiner Signature	Date Considered	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.